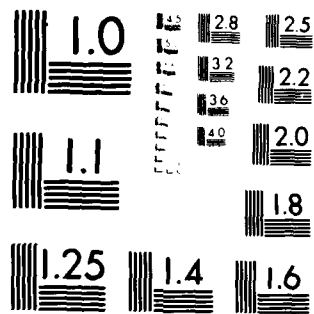


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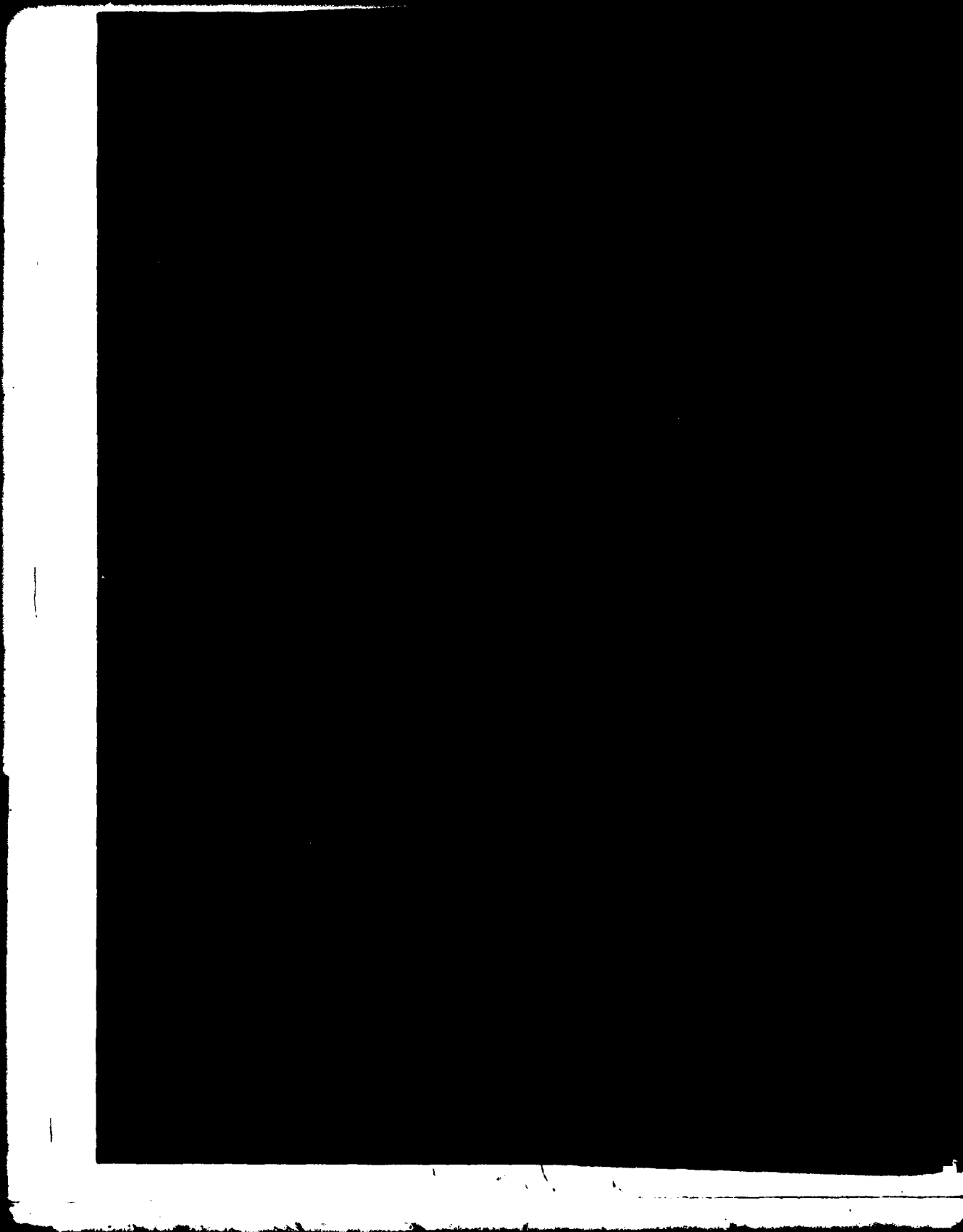
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 14819AT LANCE, Missile Number 4246, Round Number 362-APT presented in tabular form.		

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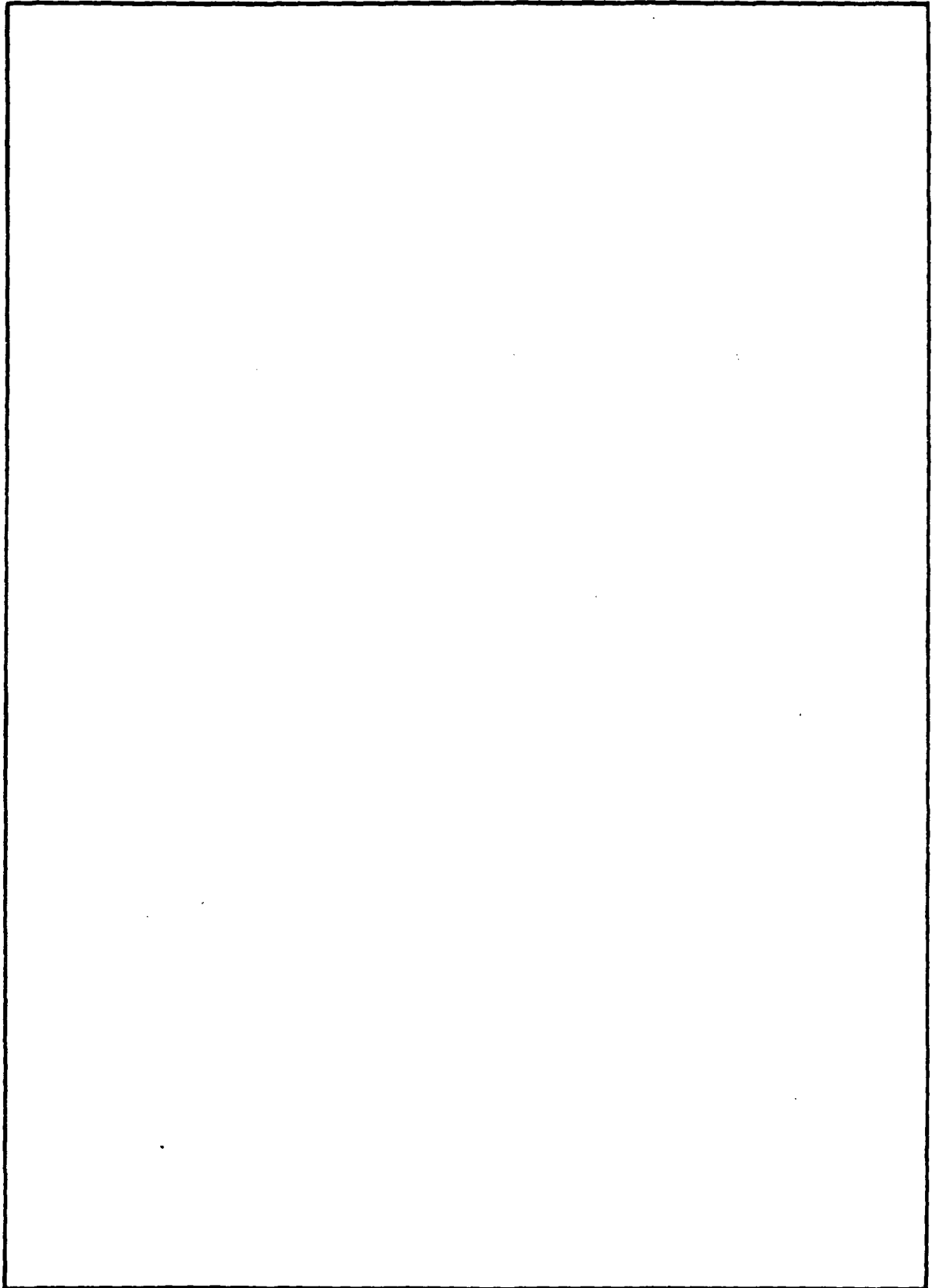
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CONTENTS

INTRODUCTION-----	1
DISCUSSION-----	1
MAP-----	2
TABLES:	
1. Surface Observation taken at 0905 MST at LC-39-----	3
2. LC-39 Pilot-Balloon-Measured Wind Data at 0855 MST-----	4
3. LC-39 Pilot-Balloon-Measured Wind Data at 0905 MST-----	5
4. WSD Significant Level Data at 1015 MST-----	6
5. WSD Upper Air Data at 1015 MST-----	8
6. WSD Mandatory Levels at 1015 MST-----	14
7. SMR Significant Level Data at 0800 MST-----	15
8. SMR Upper Air Data at 0800 MST-----	16
9. SMR Mandatory Levels at 0800 MST-----	20
10. E28 Significant Level Data at 0850 MST-----	21
11. E28 Upper Air Data at 0850 MST-----	22
12. E28 Mandatory Levels at 0850 MST-----	26

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INTRODUCTION

14819AT LANCE, Missile Number 4246, Round Number 362-APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 0906 on 23 Feb 1981. The scheduled launch time was 0900.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-39 met site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Single Theodolite observation at:

SITE AND ALTITUDE

LC-39 2720 Meters

(b) Air structure data (rawinsonde) were collected at the following met sites. Data were collected from surface to as high as possible in 500-foot increments.

SITE AND TIME

WSD	1015 MST
SMR	0800 MST
*E28	0850 MST

*E28 Site is located approx. 20 miles of HMN, at the south end of Northrop Strip.

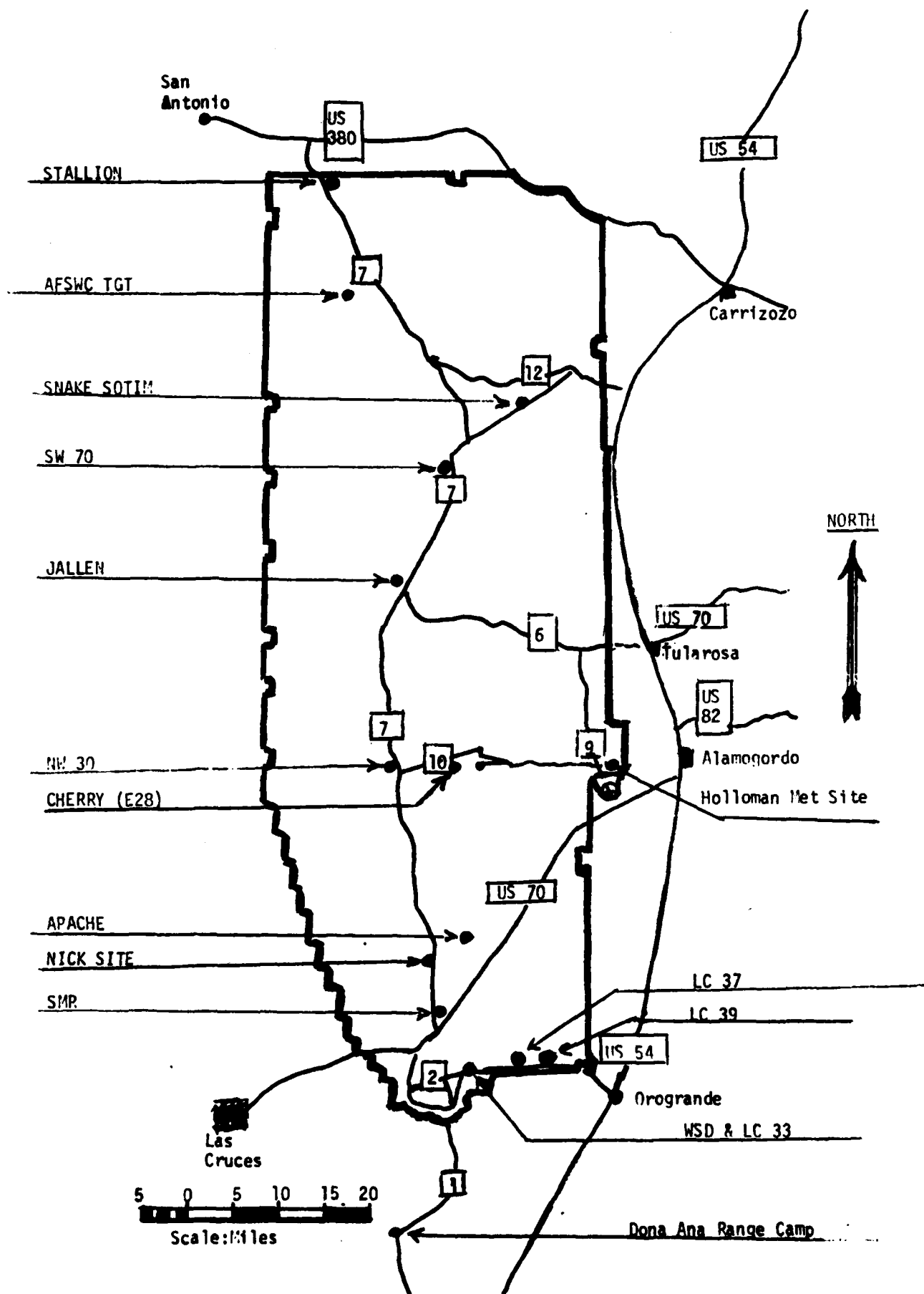


TABLE 1. Surface Observations taken at 0905 MST,
23 February 1981, at LC-39, 14819AT LANCE,
Missile Number 4246, Round Number 362-APT.

ELEVATION	4063.75	FT/MSL
PRESSURE	882.5	MBS
TEMPERATURE	5.5	°C
RELATIVE HUMIDITY	49	%
DEW POINT	-4.3	°C
DENSITY	1100	GM/M ³
WIND SPEED	CALM	KTS
WIND DIRECTION	CALM	DEGREES
CLOUD COVER	CLEAR	

PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM LC-39

DATE 23 Feb 1981

TIME 0855 MST

COORDINATES (WSTM)

$$\chi = 530,938.82$$
$$Y = 185,564.96$$

H= 4063.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO

HEIGHTS ARE METERS AGL X OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
sfc	CALM	
60	116	01
120	088	03
180	078	03
240	039	03
300	038	04
360	035	05
420	036	04
480	028	04
540	012	04
600	008	04
660	016	04
720	020	04
780	020	03
840	016	03
900	022	03
960	038	02
1020	100	02
1080	083	02
1140	074	01
1200	098	01
1260	338	01
1320	007	02
1380	034	03
1440	052	02
1500	111	01
1560	111	04
1620	117	05
1680	124	05
1740	125	05
1800	123	05

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 3

RELEASED FROM LC-39

DATE 23 Feb 1981

TIME 0905 MST

COORDINATES (WSTM) X= 530.938.82 Y= 186,564.96 H= 4063.75

NOTE: WIND DIRECTIONS ARE REFERENCED TO

HEIGHTS ARE METERS AGL X OR FEET AGL .

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
sfc	CALM	
60	090	02
120	105	03
180	108	02
240	035	02
300	045	04
360	053	04
420	040	04
480	035	04
540	035	04
600	037	04
660	036	04
720	038	03
780	067	02
840	090	01
900	150	01
960	037	01
1020	031	01
1080	039	02
1140	081	01
1200	068	01
1260	044	01
1320	044	02
1380	054	02
1440	119	02
1500	125	04
1560	130	05
1620	134	05
1680	135	05
1740	133	05
1800	131	06

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STATION ALTITUDE 3999.00 FEET MSL
23 FEB. 61
ASCENSION IS. 122

SIGNIFICANT LEVEL DATA

050002012Z
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 4

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
603.3 3989.0	11.8	-6.6	27.0
577.4 4172.9	11.5	-9.4	22.0
558.2 4777.4	9.6	-9.9	24.0
550.0 5038.9	9.6	-9.9	24.0
700.6 7075.2	8.0	-10.3	26.0
760.0 8074.5	7.3	-12.4	23.0
713.6 9762.1	2.6	-15.4	25.0
700.0 10273.8	3.2	-15.9	23.0
649.8 12251.1	2.1	-17.9	21.0
606.2 14077.8	-2.4	-21.7	21.0
589.0 14826.2	-4.1	-23.7	20.0
530.4 17520.5	-8.5	-27.4	20.0
500.0 19014.2	-12.5	-30.7	20.0
400.0 24476.4	-25.8	-41.1	22.0
372.8 26141.2	-30.0	-44.3	23.0
330.2 28320.0	-36.0	-49.6	23.0
300.0 31097.1	-42.6		
277.6 32803.1	-47.8		
250.0 35052.7	-53.1		
228.9 36993.7	-56.4		
222.8 37477.6	-55.1		
212.6 38461.2	-56.2		
200.0 39740.0	-53.6		
166.2 43650.5	-55.5		
161.6 44242.7	-56.7		
150.0 45797.4	-57.3		
133.6 48102.4	-61.2		
130.2 52063.5	-65.5		
100.0 54000.9	-66.6		
76.6 59336.6	-68.7		
70.0 61100.4	-70.9		
62.0 63502.4	-67.5		
50.4 65306.7	-67.3		
50.0 67810.1	-61.6		
45.0 69634.6	-57.1		
43.0 70948.3	-59.9		
30.0 78495.9	-54.4		
20.0 87150.5	-51.0		
15.0 93360.6	-50.7		
12.4 97537.6	-43.3		

GEODETTIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

SIGNIFICANT LEVEL DATA

0540020122
 WHITE SANDS

TABLE 4 cont'

STATION ALTITUDE 3949.00 FEET MSL
 23 FEB. 61 1015 HRS EST
 ASCENSION NO. 122

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
10.0 102337.1	-43.3	
9.2 104198.1	-43.3	

STATION ALTITUDE 5900.00 FEET MSL
 EXTER. HT 1015 MRS NST
 ASCENDING 100. 122

UPPER AIR DATA

0540020122
 WHITE SANDS

TABLE 5

GEOGRAPHIC COORDINATES
 32.40043 LAT 1EG
 106.37033 LONG 1EG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
5900.0	885.5	11.0	27.0	1070.2	658.2	0	0	1.000258
6000.0	882.9	11.6	26.7	1077.8	658.1	71.0	0	1.000257
6100.0	881.0	10.5	23.1	1063.5	656.5	71.0	0	1.000251
6200.0	881.2	9.6	24.0	1047.4	655.5	71.0	0	1.000247
6300.0	883.7	9.2	24.5	1029.6	655.1	71.0	1.1	1.000243
6400.0	820.4	8.8	24.9	1012.2	654.6	79.3	1.1	1.000239
6500.0	805.5	8.5	25.4	995.1	654.2	144.3	0	1.000235
6600.0	790.8	8.1	25.9	978.3	653.7	196.6	2.0	1.000231
6700.0	770.3	7.1	24.7	961.7	653.3	204.2	4.2	1.000227
6800.0	762.1	7.4	23.2	945.4	652.9	197.9	5.4	1.000222
6900.0	748.0	6.1	23.5	932.1	651.4	193.4	6.3	1.000216
7000.0	734.2	4.7	24.1	919.5	649.8	192.1	6.4	1.000215
7100.0	720.6	3.3	24.7	907.1	648.1	190.6	6.1	1.000212
7200.0	707.2	2.9	24.1	891.7	647.6	188.9	5.7	1.000208
7300.0	694.1	3.1	22.8	874.5	647.8	195.3	5.8	1.000203
7400.0	681.1	2.8	22.3	859.1	647.5	212.6	6.5	1.000200
7500.0	668.4	2.5	21.8	843.9	647.1	234.2	8.6	1.000196
7600.0	650.0	2.2	21.3	829.1	646.8	240.3	10.2	1.000192
7700.0	643.7	1.5	21.0	815.8	645.9	255.0	11.7	1.000189
7800.0	631.6	0.3	21.0	804.1	644.4	261.5	12.9	1.000186
7900.0	619.7	-1.0	21.0	792.6	642.9	266.4	14.0	1.000183
8000.0	608.0	-2.2	21.0	781.2	641.5	270.3	15.0	1.000180
8100.0	590.4	-3.4	20.4	769.7	640.1	273.6	13.9	1.000177
8200.0	585.0	-4.4	20.0	757.9	638.9	270.2	12.4	1.000173
8300.0	573.8	-5.2	20.0	745.6	637.9	284.2	11.2	1.000170
8400.0	562.7	-6.0	20.0	733.4	636.9	285.9	11.1	1.000168
8500.0	551.0	-6.8	20.0	721.5	635.9	281.7	12.1	1.000165
8600.0	541.2	-7.6	20.0	709.8	634.9	276.8	12.1	1.000162
8700.0	530.8	-8.5	20.0	698.3	634.0	271.2	12.0	1.000159
8800.0	520.4	-9.3	20.0	686.1	632.4	261.7	12.4	1.000156
8900.0	510.5	-11.1	20.0	674.1	630.7	253.2	13.0	1.000154
9000.0	500.3	-12.5	20.0	663.5	629.1	245.4	13.4	1.000151
9100.0	490.2	-13.7	20.2	657.9	627.6	237.7	12.7	1.000149
9200.0	480.5	-14.9	20.4	647.7	626.2	234.1	11.3	1.000146
9300.0	470.6	-16.1	20.5	637.6	624.7	235.2	11.6	1.000144
9400.0	461.0	-17.3	20.7	627.7	623.2	237.4	12.1	1.000142
9500.0	451.7	-18.6	20.9	617.9	621.7	241.3	12.8	1.000139
9600.0	442.6	-19.8	21.1	608.4	620.2	243.6	13.3	1.000137
9700.0	433.6	-21.0	21.3	598.9	618.7	245.3	13.7	1.000135
9800.0	424.0	-22.2	21.5	589.7	617.2	250.4	14.2	1.000133

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

UPPER AIR DATA
GS40020122
WHITE SANDS

TABLE 5 cont'

STATION ALTITUDE 3993.00 FEET MSL
23 FEB. 51 1015 HRS MST
ACQUISITION NO. 122

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT IN DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	910.3	-23.4	21.6	580.6	615.7	254.4	14.5	1.000131
24000.0	907.0	-24.6	21.8	571.7	614.2	255.3	14.3	1.000128
24500.0	904.6	-25.9	22.0	562.8	612.7	256.1	14.3	1.000126
25000.0	901.2	-27.1	22.3	553.9	611.1	256.8	14.5	1.000124
25500.0	898.1	-28.4	22.6	545.1	609.5	259.1	14.3	1.000122
26000.0	895.0	-29.6	22.9	536.5	608.0	262.6	13.8	1.000120
26500.0	891.1	-31.0	23.0	528.0	606.3	263.0	12.9	1.000118
27000.0	887.2	-32.4	23.0	519.7	604.6	262.0	12.2	1.000116
27500.0	883.7	-33.7	23.0	511.5	602.8	257.0	12.6	1.000114
28000.0	880.1	-35.1	23.0	503.4	601.1	251.5	14.3	1.000113
28500.0	876.6	-36.4	21.6**	495.3	599.4	245.5	16.9	1.000111
29000.0	873.2	-37.6	17.4**	486.9	597.9	244.5	19.2	1.000109
29500.0	869.8	-38.8	13.3**	478.7	596.4	246.7	21.2	1.000107
30000.0	866.4	-40.0	9.1**	470.6	594.9	250.0	22.2	1.000105
30500.0	863.1	-41.2	5.0**	462.6	593.4	253.7	23.0	1.000103
31000.0	859.8	-42.4	8.8**	454.8	591.8	255.1	23.8	1.000101
31500.0	856.6	-43.8		447.5	590.0	255.9	24.7	1.000100
32000.0	853.0	-45.4		440.3	588.0	255.7	25.7	1.000098
32500.0	849.9	-46.9		433.3	586.0	255.3	26.7	1.000097
33000.0	846.3	-48.3		426.1	584.2	252.6	27.9	1.000095
33500.0	842.7	-49.4		418.5	582.7	250.5	29.3	1.000093
34000.0	839.6	-50.6		411.0	581.2	249.5	31.0	1.000092
34500.0	836.5	-51.8		403.7	579.6	249.7	32.1	1.000090
35000.0	833.0	-53.0		396.5	578.1	251.7	32.0	1.000088
35500.0	829.7	-53.9		388.8	576.9	254.7	30.7	1.000087
36000.0	826.0	-54.7		381.2	575.8	259.7	28.0	1.000085
36500.0	822.9	-55.6		373.7	574.7	261.1	27.4	1.000083
37000.0	819.4	-56.4		366.3	573.6	259.3	28.2	1.000082
37500.0	815.1	-57.1		358.9	572.5	259.9	29.9	1.000079
38000.0	811.7	-57.7		348.1	571.5	261.5	32.0	1.000078
38500.0	808.1	-58.1		340.6	570.9	260.6	32.9	1.000076
39000.0	804.6	-58.6		331.1	570.3	277.0	34.0	1.000074
39500.0	801.1	-59.1		321.8	570.6	281.1	33.8	1.000072
40000.0	197.6	-53.7		313.8	577.1	284.8	33.5	1.000070
40500.0	193.6	-54.6		306.7	576.8	288.3	35.2	1.000068
41000.0	189.5	-54.2		299.9	576.4	291.3	37.5	1.000067
41500.0	184.1	-54.5		293.2	576.1	292.7	40.7	1.000065
42000.0	179.8	-54.7		286.7	575.8	293.4	44.3	1.000064
42500.0	175.5	-54.9		280.3	575.5	294.2	45.7	1.000062
43000.0	171.4	-55.2		274.0	575.2	295.0	46.2	1.000061

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODOLIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

UPPER AIR DATA
0540020J22
WHITE SANDS

TABLE 5 cont'

STATION ALTITUDE 3489.00 FEET MSL
23 FLP. BT
1015 HRS MST
ASCENSION NO. 122

GEODOLIC ALTITUDE MSL FTLT	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KIOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
45500.0	167.4	-53.4		267.9	574.8	296.0	45.9	1.000060
44000.0	163.5	-56.2		262.5	573.0	298.6	45.3	1.000058
44500.0	159.6	-56.8		257.0	573.0	298.9	44.6	1.000057
44000.0	155.0	-57.0		251.2	572.8	298.1	43.7	1.000056
44500.0	152.2	-57.2		245.4	572.5	296.8	44.1	1.000055
46000.0	146.5	-57.6		240.1	571.9	295.0	46.2	1.000053
46500.0	145.0	-58.4		235.2	570.8	294.1	48.0	1.000052
47000.0	141.5	-59.3		230.5	569.8	295.2	49.1	1.000051
47500.0	138.1	-60.1		225.8	568.7	296.2	50.1	1.000050
48000.0	134.8	-60.9		221.3	567.6	298.6	46.8	1.000049
48500.0	131.6	-61.5		216.6	566.0	301.3	43.7	1.000048
49000.0	128.4	-62.0		211.8	565.1	303.6	41.1	1.000047
49500.0	125.2	-62.5		207.1	565.4	305.0	38.8	1.000046
50000.0	122.2	-63.0		202.6	564.7	307.1	37.0	1.000045
50500.0	119.2	-63.5		198.1	564.1	307.2	35.8	1.000044
51000.0	116.3	-64.0		193.7	563.4	306.9	34.8	1.000043
51500.0	113.5	-64.5		189.5	562.7	305.9	34.3	1.000042
52000.0	110.7	-65.0		185.3	562.0	304.8	33.9	1.000041
52500.0	108.0	-65.5		181.2	561.4	303.9	33.6	1.000040
53000.0	105.3	-65.9		177.0	560.9	303.0	33.4	1.000039
53500.0	102.7	-66.2		173.0	560.4	303.6	31.5	1.000039
54000.0	100.2	-66.6		169.0	559.9	305.5	28.3	1.000038
54500.0	97.7	-66.8		165.0	559.7	307.6	25.3	1.000037
55000.0	95.3	-67.0		161.0	559.4	307.2	23.2	1.000036
55500.0	92.9	-67.2		157.2	559.1	306.6	21.0	1.000035
56000.0	90.6	-67.4		153.4	558.8	301.7	20.2	1.000034
56500.0	88.4	-67.6		149.7	558.6	294.6	20.3	1.000033
57000.0	86.2	-67.8		146.1	558.3	290.2	20.6	1.000032
57500.0	84.0	-68.0		142.7	558.0	291.5	20.6	1.000032
58000.0	81.9	-68.2		139.2	557.8	292.9	20.6	1.000031
58500.0	79.9	-68.4		135.9	557.5	295.4	22.1	1.000030
59000.0	77.9	-68.6		132.7	557.2	297.7	23.8	1.000030
59500.0	76.0	-68.8		129.6	556.8	299.7	24.6	1.000029
60000.0	74.1	-69.0		126.7	556.9	301.7	24.6	1.000029
60500.0	72.2	-69.1		123.9	556.1	303.6	24.7	1.000029
61000.0	70.4	-69.3		121.2	555.2	306.6	19.8	1.000028
61500.0	68.6	-69.5		117.9	554.8	317.5	14.7	1.000028
62000.0	66.9	-69.6		114.5	555.8	329.3	10.6	1.000028
62500.0	65.2	-69.8		111.3	556.7	320.7	8.5	1.000028
63000.0	63.6	-69.9		108.1	557.7	322.2	6.3	1.000028

UPPER AIR DATA
0540020122
WHITE SANDS
TABLE 5 cont'

STATION ALTITUDE 393.00 FEET MSL
23 FEB. 61
ASCENSION NO. 122

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT DEGREES CLNTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	62.0	-67.5		105.0	550.7	307.9	5.7	1.000023
64000.0	60.5	-67.4		102.4	558.7	291.9	6.9	1.000023
64500.0	59.0	-67.4		99.8	550.8	281.3	8.5	1.000022
65000.0	57.5	-67.3		97.3	558.9	277.3	7.4	1.000022
65500.0	56.1	-67.0		94.8	559.3	272.2	6.5	1.000021
66000.0	54.7	-65.9		91.9	560.9	267.4	6.3	1.000020
66500.0	53.4	-64.7		89.2	562.5	268.9	6.9	1.000020
67000.0	52.1	-63.5		86.5	564.1	262.9	7.6	1.000019
67500.0	50.8	-62.3		83.9	565.6	265.4	9.1	1.000019
68000.0	49.6	-61.2		81.4	567.2	267.4	10.7	1.000018
68500.0	48.4	-59.9		79.0	568.9	270.1	11.3	1.000018
69000.0	47.2	-58.7		76.7	570.5	275.6	10.0	1.000017
69500.0	46.1	-57.4		74.4	572.2	282.7	8.8	1.000017
70000.0	45.0	-57.6		72.7	572.0	289.8	6.7	1.000016
70500.0	43.9	-58.3		71.2	571.1	302.9	4.1	1.000016
71000.0	42.9	-58.9		69.7	570.3	344.9	2.3	1.000016
71500.0	41.9	-58.6		68.0	570.7	359.1	1.8	1.000015
72000.0	40.9	-58.3		66.3	571.1	9.9	1.4	1.000015
72500.0	39.9	-58.0		64.6	571.5	26.5	1.0	1.000014
73000.0	39.0	-57.7		63.0	571.9	54.4	.3	1.000014
73500.0	38.1	-57.4		61.5	572.3	175.3	.6	1.000014
74000.0	37.2	-57.1		59.9	572.7	176.4	1.3	1.000013
74500.0	36.3	-56.8		58.4	573.0	164.0	2.3	1.000013
75000.0	35.4	-56.5		57.0	573.4	150.9	3.2	1.000013
75500.0	34.6	-56.2		55.6	573.8	153.3	4.1	1.000012
76000.0	33.8	-55.9		54.2	574.2	147.5	4.9	1.000012
76500.0	33.0	-55.6		52.8	574.6	143.4	5.8	1.000012
77000.0	32.2	-55.3		51.5	575.0	141.7	7.2	1.000011
77500.0	31.5	-55.0		50.2	575.4	141.1	8.9	1.000011
78000.0	30.7	-54.7		49.0	575.8	140.7	10.6	1.000011
78500.0	30.0	-54.4		47.8	576.2	144.6	11.3	1.000011
79000.0	29.3	-54.2		46.6	576.5	149.0	11.9	1.000010
79500.0	28.6	-54.0		45.5	576.7	152.9	12.6	1.000010
80000.0	28.0	-53.8		44.4	577.0	156.5	12.5	1.000010
80500.0	27.3	-53.6		43.3	577.2	160.2	12.4	1.000010
81000.0	26.7	-53.4		42.3	577.5	163.9	12.4	1.000009
81500.0	26.1	-53.2		41.3	577.7	168.8	12.7	1.000009
82000.0	25.5	-53.0		40.3	578.0	165.5	13.0	1.000009
82500.0	24.9	-52.8		39.3	578.3	160.4	13.2	1.000009
83000.0	24.3	-52.6		38.4	578.5	168.6	13.4	1.000009

STATION ALTITUDE 3400.00 FEET MSL
23 FEB. 61
ACCESSION NO. 122

UPPER AIR DATA
05400020122
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 5 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
84500.0	25.7	-52.4		37.5	578.8	170.7	13.6	1.000004
84000.0	25.2	-52.2		36.6	579.0	172.6	13.7	1.000004
83500.0	24.7	-52.0		35.7	579.3	173.6	13.7	1.000004
83000.0	24.1	-51.8		34.8	579.5	174.5	13.6	1.000004
82500.0	21.6	-51.7		34.0	579.8	175.6	13.0	1.000004
82000.0	21.1	-51.5		33.2	580.1	178.0	10.7	1.000007
81500.0	20.6	-51.3		32.4	580.3	181.8	8.4	1.000007
81000.0	20.1	-51.1		31.6	580.6	188.3	6.1	1.000007
80500.0	19.7	-51.0		30.9	580.7	202.5	4.0	1.000007
80000.0	19.2	-51.0		30.2	580.7	239.4	2.5	1.000007
79500.0	18.8	-50.9		29.5	580.7	292.2	3.0	1.000007
79000.0	18.4	-50.9		28.8	580.8	303.6	4.3	1.000006
78500.0	17.0	-50.9		28.1	580.8	298.6	5.1	1.000006
78000.0	17.5	-50.9		27.5	580.8	294.9	6.0	1.000006
77500.0	17.1	-50.8		26.8	580.9	292.3	6.9	1.000006
77000.0	16.7	-50.8		26.2	580.9	277.8	6.5	1.000006
76500.0	16.4	-50.8		25.6	580.9	262.2	6.6	1.000006
76000.0	16.0	-50.8		25.0	581.0	248.0	7.1	1.000006
75500.0	15.6	-50.7		24.5	581.0	240.2	8.0	1.000005
75000.0	15.3	-50.7		23.9	581.0	238.2	9.2	1.000005
74500.0	14.9	-50.5		23.3	581.4	236.7	10.3	1.000005
74000.0	14.6	-49.6		22.7	582.5	235.4	11.5	1.000005
73500.0	14.2	-48.7		22.1	583.7	239.2	13.7	1.000005
73000.0	13.9	-47.8		21.5	584.8	242.3	16.1	1.000005
72500.0	13.6	-46.9		21.0	586.0	244.6	18.5	1.000005
72000.0	13.3	-46.0		20.4	587.1	246.4	20.7	1.000005
71500.0	13.0	-45.1		19.9	588.3	247.7	22.6	1.000004
71000.0	12.7	-44.3		19.3	589.4	248.8	24.4	1.000004
70500.0	12.4	-43.4		18.8	590.5	249.8	26.2	1.000004
70000.0	12.1	-43.3		18.4	590.6	251.1	28.3	1.000004
69500.0	11.9	-43.3		18.0	590.6	252.5	30.6	1.000004
69000.0	11.6	-43.3		17.6	590.6	253.7	32.8	1.000004
68500.0	11.4	-43.3		17.2	590.6	254.8	34.9	1.000004
68000.0	11.1	-43.3		16.8	590.6	256.0	35.6	1.000004
67500.0	10.9	-43.3		16.5	590.6	257.2	36.4	1.000004
67000.0	10.6	-43.3		16.1	590.6	258.3	37.1	1.000004
66500.0	10.4	-43.3		15.7	590.6			1.000004
66000.0	10.2	-43.3		15.4	590.6			1.000003
65500.0	9.9	-43.3		15.0	590.6			1.000003
65000.0	9.7	-43.3		14.7	590.6			1.000003

STATION ALTITUDE 3999.00 FEET MSL	UPPER AIR DATA	GEODETIC COORDINATES
23 FEB. 61	0540020122	32.40043 LAT DEG
ASCENSION NO. 122	WHITE SANDS	106.37033 LON DEG

TABLE 5 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE			DIRECTION DEGREES (TN)	SPEED KNOTS	
103500.0	9.5	-03.3			14.4	590.6		1.000003
104000.0	9.3	-03.3			14.1	590.6		1.000003

STATION ALTITUDE 3989.00 FEET MSL
23 FEB. 61 1015 HRS MST
ASCENSION NO. 122

MANDATORY LEVELS
0540020122
WHITE SANDS

GEODEIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6

PRESSURE GEOPOTENTIAL MILLIBARS	FEET	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5035.	9.6	-9.9	24.	71.0	.8
800.0	6081.	8.3	-10.2	26.	170.6	.8
750.0	8424.	6.3	-13.0	23.	193.6	0.3
700.0	10264.	3.2	-15.9	23.	192.4	5.8
650.0	12230.	2.1	-17.9	21.	250.8	10.9
600.0	14329.	-3.0	-22.4	21.	272.6	14.5
550.0	16571.	-7.0	-26.1	20.	281.0	12.2
500.0	18907.	-12.5	-30.7	20.	245.3	13.4
450.0	21596.	-18.8	-35.6	21.	242.1	12.9
400.0	24436.	-25.8	-41.1	22.	256.1	14.3
350.0	27558.	-34.0	-47.0	23.	256.1	13.1
300.0	31035.	-42.6			255.2	24.0
250.0	34976.	-53.1			251.8	32.0
200.0	39653.	-53.6			282.8	33.7
175.0	42461.	-55.0			294.3	45.7
150.0	45674.	-57.3			295.8	45.2
125.0	49405.	-62.6			306.1	38.6
100.0	53874.	-60.6			305.6	28.2
80.0	58285.	-60.4			295.2	22.0
70.0	60900.	-70.9			309.7	19.0
60.0	63926.	-67.4			288.9	7.2
50.0	67566.	-61.6			266.6	10.0
40.0	72165.	-58.0			24.3	1.1
30.0	78163.	-54.4			144.2	11.2
25.0	82009.	-52.9			166.0	13.2
20.0	86752.	-51.0			190.6	5.6
15.0	92898.	-50.7			237.2	9.9
10.0	101786.	-43.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32-48034 LAT DEG
106-42307 LONG DEG

SIGNIFICANT LEVEL DATA
0540060029
S M R

TABLE 7

STATION ALTITUDE 3997.30 FEET MSL
23 FEB. 61 0800 HRS MST
ASCENSION NO. 29

PRESSURE GEOMETRIC ALTITUDE MILLIBARS HGL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
300.5	3997.3	-4	30.0
371.8	4378.7	2.0	30.0
652.2	4768.0	7.1	25.0
850.0	5059.4	8.9	23.0
1000.2	5374.5	9.0	22.0
700.0	10280.9	2.8	20.0
643.8	12493.7	-1	19.0
554.4	16373.6	-7.4	19.0
500.0	18988.1	-13.4	19.0
486.0	19698.0	-14.0	18.0
442.8	22000.4	-18.9	19.0
400.0	24457.4	-25.9	20.0
342.2	28100.8	-35.0	21.0
300.0	31082.8	-42.6	
250.0	35046.5	-52.9	
238.8	36015.2	-54.8	
213.2	38389.4	-57.7	
200.0	39718.3	-57.7	
166.2	43557.7	-58.9	
162.0	44089.1	-57.4	
150.0	45690.2	-56.0	
144.4	46477.4	-59.8	
100.0	53924.5	-66.9	
70.0	60976.1	-70.4	
50.0	67601.6	-63.9	
49.2	68007.7	-64.5	

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LONG DEG

UPPER AIR DATA
0540000029
S M R
TABLE 8

STATION ALTITUDE 3997.30 FEET MSL
23 FEB. 41
0000 HRS MST
ASCENSION NO. 29

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	884.5	-4	30.0	1128.9	643.6	230.0	2.9	1.000261
4000.0	884.4	-4	30.0	1128.7	643.7	230.1	2.9	1.000261
4500.0	867.9	3.6	28.4	1091.4	648.4	248.9	1.6	1.000254
5000.0	851.9	8.5	23.4	1052.3	654.2	312.3	1.0	1.000247
5500.0	836.3	8.8	21.9	1032.0	654.6	350.6	2.0	1.000242
6000.0	820.4	8.2	21.7	1015.3	653.8	13.4	3.3	1.000237
6500.0	805.7	7.6	21.5	998.8	653.1	21.1	4.4	1.000233
7000.0	790.9	6.9	21.3	982.7	652.3	44.6	2.9	1.000229
7500.0	776.3	6.3	21.1	966.8	651.6	78.8	2.4	1.000225
8000.0	762.0	5.7	20.9	951.1	650.8	93.3	2.1	1.000221
8500.0	748.0	5.1	20.7	935.7	650.1	70.4	2.5	1.000217
9000.0	734.2	4.4	20.5	920.6	649.3	44.3	4.1	1.000214
9500.0	720.6	3.8	20.3	905.7	648.6	50.9	5.0	1.000210
10000.0	707.4	3.2	20.1	891.1	647.8	57.0	5.9	1.000206
10500.0	694.2	2.5	19.9	876.6	647.1	60.8	4.3	1.000203
11000.0	681.2	1.9	19.7	862.3	646.3	69.4	2.6	1.000199
11500.0	668.5	1.2	19.4	848.2	645.5	312.3	1.1	1.000195
12000.0	655.9	.5	19.2	834.3	644.7	278.7	4.1	1.000192
12500.0	643.6	-.1	19.0	820.7	644.0	296.0	6.1	1.000189
13000.0	631.4	-1.1	19.0	807.8	642.8	304.4	8.4	1.000185
13500.0	619.3	-2.0	19.0	795.2	641.7	305.1	10.1	1.000182
14000.0	607.5	-2.9	19.0	782.7	640.6	305.5	11.7	1.000179
14500.0	595.9	-3.9	19.0	770.5	639.5	298.8	13.0	1.000176
15000.0	584.5	-4.8	19.0	758.5	638.3	293.1	14.4	1.000173
15500.0	573.4	-5.8	19.0	746.6	637.2	288.6	15.8	1.000170
16000.0	562.4	-6.7	19.0	735.0	636.1	284.6	17.1	1.000167
16500.0	551.6	-7.7	19.0	723.6	634.9	280.4	17.9	1.000165
17000.0	540.9	-8.8	19.0	712.5	633.5	275.7	18.0	1.000162
17500.0	530.3	-10.0	19.0	701.7	632.1	269.8	17.5	1.000159
18000.0	519.9	-11.1	19.0	691.0	630.7	267.6	16.5	1.000157
18500.0	509.7	-12.3	19.0	680.5	629.3	260.9	15.1	1.000154
19000.0	499.9	-13.4	19.0	670.1	628.0	269.1	13.8	1.000152
19500.0	489.2	-14.6	18.3	657.9	627.4	273.5	12.5	1.000149
20000.0	480.1	-15.7	18.3	646.8	626.5	273.8	12.2	1.000146
20500.0	470.5	-16.8	18.3	636.5	625.2	271.0	12.4	1.000144
21000.0	461.1	-17.9	18.0	626.4	623.9	268.2	12.6	1.000141
21500.0	451.9	-19.0	18.0	616.4	622.6	265.4	12.8	1.000139
22000.0	442.8	-20.1	19.0	606.6	621.3	264.9	12.6	1.000137
22500.0	433.7	-21.2	19.2	597.5	619.5	266.1	12.3	1.000134
23000.0	424.9	-21.7	17.4	588.6	617.8	267.2	12.3	1.000132

STATION ALTITUDE 397.30 FEET MSL
23 FEB. 61
ASCENSION NO. 29

UPPER AIR DATA
034000G0029
S M R

GEODETIC COORDINATES
32.40034 LAT DEG
106.42307 LON DEG

TABLE 8 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	416.2	-23.2	19.6	579.9	616.0	260.0	12.4	1.000130
24000.0	407.6	-24.6	19.8	571.3	614.2	267.1	12.9	1.000128
24500.0	399.3	-26.0	20.0	562.7	612.5	263.5	13.5	1.000126
25000.0	390.8	-27.3	20.1	553.6	610.9	264.0	14.2	1.000124
25500.0	382.6	-28.5	20.3	544.7	609.4	262.6	14.9	1.000122
26000.0	374.5	-29.7	20.4	535.9	607.8	261.4	15.5	1.000120
26500.0	366.6	-31.0	20.6	527.3	606.3	260.5	16.2	1.000118
27000.0	358.8	-32.2	20.7	518.8	604.7	259.9	17.0	1.000116
27500.0	351.2	-33.5	20.8	510.5	603.1	260.2	17.8	1.000114
28000.0	343.8	-34.7	21.0	502.3	601.6	260.6	18.7	1.000112
28500.0	336.3	-36.0	19.2**	494.0	600.0	261.3	19.3	1.000110
29000.0	329.0	-37.3	14.7**	485.8	598.3	262.0	19.9	1.000108
29500.0	321.8	-38.6	11.2**	477.8	596.7	260.1	20.5	1.000107
30000.0	314.7	-39.8	7.6**	469.9	595.1	258.3	21.2	1.000105
30500.0	307.8	-41.1	4.1**	462.2	593.4	254.8	22.0	1.000103
31000.0	301.1	-42.4	4.1**	454.6	591.8	251.1	22.9	1.000101
31500.0	294.3	-43.7	6.6**	446.8	590.1	249.1	23.6	1.000100
32000.0	287.6	-45.0		439.1	588.5	248.2	24.2	1.000098
32500.0	281.1	-46.3		431.6	586.8	248.2	24.7	1.000096
33000.0	274.7	-47.6		424.2	585.1	249.2	25.3	1.000094
33500.0	268.4	-48.9		417.0	583.4	249.9	25.8	1.000093
34000.0	262.3	-50.2		409.9	581.7	249.4	26.6	1.000091
34500.0	256.4	-51.5		402.9	580.0	248.9	27.5	1.000090
35000.0	250.5	-52.8		396.0	578.3	251.8	27.3	1.000088
35500.0	244.7	-53.8		388.6	577.0	254.7	27.3	1.000087
36000.0	239.0	-54.8		381.2	575.7	257.6	26.2	1.000085
36500.0	233.3	-55.4		373.3	574.9	260.7	26.6	1.000083
37000.0	227.0	-56.0		365.5	574.1	262.9	23.4	1.000081
37500.0	222.5	-56.6		357.9	573.3	263.1	22.7	1.000080
38000.0	217.2	-57.2		350.4	572.5	263.4	22.2	1.000078
38500.0	212.1	-57.7		342.9	571.8	266.8	23.2	1.000076
39000.0	207.0	-57.7		334.7	571.8	263.8	24.2	1.000075
39500.0	202.1	-57.7		326.8	571.8	273.5	25.5	1.000073
40000.0	197.3	-57.8		319.2	571.7	281.3	27.2	1.000071
40500.0	192.6	-57.8		311.8	571.5	286.2	29.6	1.000069
41000.0	188.0	-58.1		304.6	571.3	283.7	33.1	1.000068
41500.0	183.5	-58.3		297.5	571.1	292.6	36.7	1.000066
42000.0	179.2	-58.4		290.7	570.9	296.5	38.9	1.000065
42500.0	174.9	-58.6		283.9	570.7	300.0	41.1	1.000063
43000.0	170.7	-58.7		277.4	570.5	303.8	42.6	1.000062

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3597.10 FEET MSL
23 FEB. 81 0800 HRS MST
ASCLSION NO. 20

UPPER AIR DATA
0540060029
S M R

GEOMETRIC COORDINATES
32.98034 LAT DEG
106.42307 LON DEG

TABLE 8 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	166.7	-58.2		271.0	570.3	307.5	44.0	1.000060
44000.0	162.7	-57.7		263.0	571.9	309.5	45.5	1.000059
44500.0	159.8	-57.6		256.6	572.0	310.0	47.1	1.000057
45000.0	155.1	-57.7		250.8	571.0	310.4	48.6	1.000056
45500.0	151.4	-57.9		245.0	571.5	309.6	48.9	1.000055
46000.0	147.8	-58.7		240.1	570.5	308.7	49.1	1.000053
46500.0	144.2	-59.8		235.5	569.0	307.9	49.0	1.000052
47000.0	140.7	-60.3		230.3	568.4	307.3	47.8	1.000051
47500.0	137.3	-60.8		225.2	567.7	306.6	46.5	1.000050
48000.0	134.0	-61.3		220.2	567.1	306.0	44.7	1.000049
48500.0	130.7	-61.7		215.3	566.5	307.4	42.4	1.000048
49000.0	127.5	-62.2		210.6	565.8	308.0	40.2	1.000047
49500.0	124.4	-62.7		205.9	565.2	307.6	38.2	1.000046
50000.0	121.4	-63.2		201.3	564.5	307.0	36.1	1.000045
50500.0	118.4	-63.6		196.9	563.9	306.7	34.8	1.000044
51000.0	115.5	-64.1		192.5	563.3	306.6	34.4	1.000043
51500.0	112.7	-64.6		188.3	562.6	306.6	34.0	1.000042
52000.0	110.0	-65.1		184.1	562.0	307.3	33.5	1.000041
52500.0	107.3	-65.5		180.0	561.3	308.3	33.0	1.000040
53000.0	104.7	-66.0		176.0	560.7	309.4	32.4	1.000039
53500.0	102.1	-66.5		172.1	560.0	311.0	29.9	1.000038
54000.0	99.6	-66.9		168.3	559.4	312.9	27.2	1.000037
54500.0	97.1	-67.2		164.3	559.1	314.9	24.8	1.000037
55000.0	94.7	-67.4		160.4	558.8	315.6	23.2	1.000036
55500.0	92.3	-67.7		156.6	558.4	316.4	21.5	1.000035
56000.0	90.0	-67.9		152.8	558.1	316.7	20.8	1.000034
56500.0	87.8	-68.2		149.2	557.0	316.4	21.2	1.000033
57000.0	85.6	-68.4		145.6	557.4	316.1	21.5	1.000032
57500.0	83.5	-68.7		142.2	557.1	315.1	22.6	1.000032
58000.0	81.4	-68.9		138.8	556.7	313.0	23.9	1.000031
58500.0	79.3	-69.2		135.5	556.4	312.7	25.2	1.000030
59000.0	77.4	-69.4		132.3	556.1	310.1	26.6	1.000029
59500.0	75.4	-69.7		129.1	555.7	307.4	28.0	1.000029
60000.0	73.5	-69.9		126.1	555.4	304.9	29.5	1.000028
60500.0	71.7	-70.2		123.1	555.0	307.2	26.0	1.000027
61000.0	69.9	-70.4		120.1	554.8	311.2	22.0	1.000027
61500.0	68.2	-69.9		116.9	555.4	316.8	18.1	1.000026
62000.0	66.5	-69.4		113.7	556.1	321.4	13.3	1.000025
62500.0	64.8	-68.9		110.6	556.7	330.5	8.6	1.000025
63000.0	63.2	-68.4		107.6	557.4	350.0	4.6	1.000024

UPPER AIR DATA
0540000029
S M R

STATION ALTITUDE 3977.30 FEET MSL
25 FEB. 81 0800 1825 MST
ACQUISITION NO. 29

GEODETIC COORDINATES
32.48034 LAT NEG
106.42307 LONG NEG

TABLE 8 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND METER	WIND DATA		REFRACTION
						DIRECTION DEGREES (TU)	SPEED KNOTS	
03500.0	61.7	-68.0		104.7	550.1	328.3	3.9	1.000023
04000.0	60.1	-67.5		101.9	558.7	295.8	4.9	1.000023
04500.0	58.7	-67.0		99.1	559.4	278.3	6.9	1.000022
05000.0	57.2	-66.5		96.4	560.0	276.0	9.2	1.000021
05500.0	53.8	-66.0		93.8	560.7	275.9	11.5	1.000021
06000.0	54.4	-65.5		91.3	561.3	275.8	13.9	1.000020
06500.0	53.1	-65.0		88.8	562.0			1.000020
07000.0	51.7	-64.6		86.4	562.7			1.000019
07500.0	50.5	-64.1		84.1	563.3			1.000019
08000.0	49.2	-64.5		82.2	562.8			1.000018

STATION ALTITUDE 3927.00 FEET MSL
 23 FEB. 61
 ASCENSION NO. 20

MANDATORY LEVELS
 0540060024
 S M R

GEODETIC COORDINATES
 32.44034 LAT DEG
 106.42307 LONG DEG

TABLE 9

PRESSURE	POTENTIAL	TEMPERATURE	REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEWPOINT DEGREES CENTIGRADE	PERCENT	DIRECTION DEGREES (TH)	SPEED KNOTS
850.0	5056.	8.0	23.	320.9	1.1
800.0	6697.	7.3	21.	28.3	3.7
750.0	8432.	5.1	21.	76.1	2.3
700.0	10271.	2.8	20.	58.6	5.0
650.0	12228.	.2	19.	288.5	5.0
600.0	14318.	-3.5	19.	301.0	12.6
550.0	16556.	-7.9	19.	279.9	18.0
500.0	18962.	-13.4	19.	269.0	13.8
450.0	21572.	-18.1	19.	264.0	12.8
400.0	24417.	-25.9	20.	265.6	13.4
350.0	27540.	-33.7	21.	260.3	18.0
300.0	31021.	-42.6		250.6	23.0
250.0	34971.	-52.9		251.9	27.3
200.0	39623.	-57.7		277.9	26.1
175.0	42333.	-58.6		299.8	40.9
150.0	45568.	-58.0		309.3	49.0
125.0	49290.	-62.6		307.7	38.6
100.0	53759.	-66.0		312.5	27.8
80.0	58158.	-69.1		313.1	24.8
70.0	60768.	-70.4		310.7	22.4
60.0	63794.	-67.4		296.3	4.9
50.0	67429.	-63.9			

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3912.75 FEET MSL
23 FEB. 61
ACQUISITION NO. 22

SIGNIFICANT LEVEL DATA
0500290022
F-24

TABLE 10

FEET ABOVE GROUND	ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
000.0	3912.7	-1.5	53.0
675.0	4212.5	3.6	31.0
1350.0	4464.2	5.8	28.0
2025.0	5015.7	6.8	26.0
2700.0	5412.5	7.7	28.0
3375.0	5571.8	7.3	27.0
4050.0	6743.4	3.4	26.0
4725.0	10218.0	1.6	23.0
5400.0	12374.4	-1.5	21.0
6075.0	16381.9	-7.4	20.0
6750.0	18704.8	-13.4	20.0
7425.0	20098.6	-15.4	19.0
8100.0	24353.6	-26.4	20.0
8775.0	27713.1	-35.4	23.0
9450.0	30948.7	-44.2	
10125.0	34288.5	-54.0	
10800.0	36924.8	-58.0	
11475.0	39539.3	-58.2	
12150.0	42567.7	-58.7	
12825.0	43325.7	-57.8	
13500.0	44397.2	-59.5	
14175.0	45097.2	-58.7	
14850.0	47593.4	-61.9	
15525.0	53705.8	-67.6	
16200.0	56023.2	-67.2	
16875.0	60731.7	-73.5	
17550.0	62122.2	-68.0	
18225.0	66579.4	-60.0	
18900.0	67057.6	-60.3	
19575.0	71372.3	-57.4	
20250.0	72038.7	-58.7	
20925.0	75663.1	-56.6	

STATION ALTITUDE 3912.75 FEET MSL
 23 FEB. 61
 ACQUISITION NO. 22

UNDEP AIR DATA
 0500290022
 E-28

GEODETIC COORDINATES
 32.89927 LAT DEG
 106.40591 LONG DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
3912.7	885.8	-1.5	53.0	.1134.0	642.5	240.0	4.1	1.000268
4000.0	882.9	-0.0	46.6	.1124.7	644.2	240.5	3.8	1.000265
4500.0	860.6	5.0	27.9	.1080.6	651.1	240.0	2.2	1.000263
5000.0	850.5	6.0	26.1	.1057.2	652.2	273.6	.8	1.000248
5500.0	834.9	7.7	27.9	.1034.4	653.5	25.9	1.1	1.000244
6000.0	814.6	7.5	27.4	.1016.2	653.0	46.1	2.1	1.000240
6500.0	803.5	7.1	26.9	.998.9	652.6	57.7	2.7	1.000236
7000.0	789.7	6.3	26.7	.983.4	651.6	63.7	2.6	1.000231
7500.0	775.1	5.4	26.5	.968.1	650.6	70.7	2.0	1.000227
8000.0	760.8	4.6	26.3	.953.1	649.7	101.0	1.8	1.000223
8500.0	746.7	3.8	26.1	.938.3	648.7	135.1	3.2	1.000219
9000.0	732.9	3.1	25.5	.923.3	647.8	143.5	5.1	1.000215
9500.0	719.2	2.5	24.5	.908.2	647.1	145.0	7.1	1.000211
10000.0	705.8	1.9	23.4	.893.2	646.3	142.9	7.4	1.000207
10500.0	692.6	1.2	22.7	.878.8	645.5	138.4	6.9	1.000203
11000.0	679.5	.9	22.2	.864.6	644.6	140.4	5.0	1.000200
11500.0	666.7	-.3	21.8	.850.7	643.7	172.9	3.1	1.000196
12000.0	654.2	-1.1	21.3	.837.1	642.8	240.4	3.0	1.000193
12500.0	641.8	-1.8	20.9	.823.5	641.9	277.6	6.0	1.000189
13000.0	629.5	-2.5	20.8	.809.9	641.1	290.9	8.3	1.000186
13500.0	617.5	-3.3	20.7	.796.5	640.2	305.3	10.9	1.000183
14000.0	605.6	-4.0	20.6	.783.4	639.3	293.7	12.3	1.000179
14500.0	594.1	-4.7	20.5	.770.5	638.5	293.8	13.8	1.000176
15000.0	582.7	-5.6	20.3	.757.8	637.6	290.0	16.1	1.000173
15500.0	571.5	-6.1	20.2	.745.3	636.8	287.2	18.5	1.000170
16000.0	560.6	-6.9	20.1	.733.0	635.9	286.0	18.9	1.000167
16500.0	549.9	-7.7	20.0	.721.2	634.9	284.9	19.3	1.000164
17000.0	539.1	-8.7	20.0	.710.5	633.5	278.2	18.2	1.000162
17500.0	528.5	-10.1	20.0	.699.0	632.0	269.9	17.2	1.000159
18000.0	518.2	-11.2	20.0	.687.0	630.6	267.3	15.8	1.000156
18500.0	508.1	-12.4	20.0	.676.6	629.1	265.0	14.5	1.000154
19000.0	498.1	-13.6	20.0	.668.5	627.7	266.0	14.3	1.000151
19500.0	488.2	-14.6	19.5	.657.7	626.5	266.7	14.2	1.000149
20000.0	478.5	-15.7	19.1	.647.3	625.2	265.3	14.8	1.000146
20500.0	468.8	-16.4	19.1	.637.1	623.7	264.4	15.3	1.000144
21000.0	459.2	-17.1	19.2	.627.2	622.2	265.1	14.8	1.000141
21500.0	449.9	-18.4	19.3	.617.4	620.7	265.4	14.1	1.000139
22000.0	440.7	-20.0	19.4	.607.8	619.2	262.6	12.9	1.000137
22500.0	431.7	-21.8	19.6	.598.3	617.7	259.2	11.7	1.000135
23000.0	422.9	-23.1	19.7	.589.0	616.1	254.9	11.3	1.000132

STATION ALTITUDE 3412.75 FEET MSL
 25 FEB. 61 0850 GRS LAT
 ASCENSION 100. 22

UPPER AIR DATA
 0540290022
 F-28

GEODETTIC COORDINATES
 32.89227 LAT NEG
 106.40591 LONG DEG

TABLE 11 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	919.3	-24.3	19.8	579.9	614.6	250.6	11.0	1.000130
24000.0	902.0	-25.5	19.9	570.9	613.1	252.1	11.4	1.000128
24500.0	887.5	-26.3	20.1	562.0	611.5	253.5	11.8	1.000126
25000.0	875.1	-28.1	20.6	553.1	609.8	258.7	12.7	1.000124
25500.0	865.5	-29.5	21.0	544.4	608.2	263.3	13.8	1.000122
26000.0	852.8	-30.8	21.5	535.8	606.5	263.6	14.7	1.000120
26500.0	842.0	-32.2	21.9	527.4	604.8	263.5	15.6	1.000118
27000.0	831.1	-33.5	22.4	519.1	603.1	261.4	16.6	1.000116
27500.0	820.5	-34.8	22.8	511.0	601.4	259.0	17.7	1.000114
28000.0	812.0	-36.2	21.0**	502.8	599.7	259.2	18.7	1.000112
28500.0	804.5	-37.5	17.4**	494.5	598.0	261.7	19.6	1.000110
29000.0	827.1	-38.9	13.9**	486.5	596.3	263.5	20.4	1.000109
29500.0	820.0	-40.3	10.3**	478.6	594.5	264.4	21.0	1.000107
30000.0	812.9	-41.6	6.7**	470.8	592.8	264.1	22.0	1.000105
30500.0	806.0	-43.0	3.2**	463.2	591.0	259.6	24.2	1.000103
31000.0	799.3	-44.3		455.6	589.3	256.4	26.2	1.000101
31500.0	792.4	-45.6		447.7	587.7	253.6	27.5	1.000100
32000.0	785.8	-46.8		439.8	586.1	251.4	28.5	1.000098
32500.0	779.2	-48.1		432.1	584.5	250.7	28.7	1.000096
33000.0	772.8	-49.3		424.6	582.9	250.0	28.9	1.000095
33500.0	766.6	-50.5		417.2	581.2	250.1	30.1	1.000093
34000.0	760.5	-51.8		410.0	579.6	250.3	31.2	1.000091
34500.0	754.5	-53.0		402.8	578.0	251.3	31.8	1.000090
35000.0	748.7	-54.2		395.7	576.4	252.5	32.3	1.000088
35500.0	742.8	-55.2		388.1	575.1	253.7	31.0	1.000086
36000.0	737.1	-56.2		380.7	573.8	259.7	29.4	1.000085
36500.0	731.5	-57.2		373.4	572.5	263.4	28.1	1.000083
37000.0	726.0	-58.0		366.0	571.4	267.0	27.0	1.000082
37500.0	720.6	-58.0		358.3	571.4	269.9	28.3	1.000080
38000.0	715.4	-58.1		349.9	571.3	271.9	31.0	1.000078
38500.0	710.3	-58.1		340.6	571.3	274.9	32.7	1.000076
39000.0	705.3	-58.2		332.6	571.2	273.9	33.5	1.000074
39500.0	700.4	-58.2		324.7	571.2	283.0	34.0	1.000072
40000.0	695.6	-58.3		317.1	571.1	288.3	33.3	1.000071
40500.0	690.9	-58.3		309.7	571.0	293.8	32.9	1.000069
41000.0	686.4	-58.4		302.4	570.8	298.7	36.1	1.000067
41500.0	681.9	-58.5		295.3	570.7	302.8	39.7	1.000066
42000.0	677.6	-58.6		288.4	570.6	304.4	42.3	1.000064
42500.0	673.4	-58.7		281.6	570.5	304.5	44.0	1.000063
43000.0	669.2	-58.7		274.3	571.2	304.4	45.5	1.000061

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32.89927 LAT DEG
106.40591 LONG DEG

UPPER AIR DATA
0540290022
E-28

STATION ALTITUDE 3912.75 FEET MSL
23 FEB 61 0450 HRS MST
ASCENSION NO. 22

TABLE 11 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TD)	SPEED KNOTS	
43500.0	165.2	-59.1		267.0	571.3	303.4	45.5	1.000060
44000.0	161.3	-58.0		262.2	570.3	302.4	45.4	1.000058
44500.0	157.4	-59.4		250.0	569.5	301.6	46.0	1.000057
45000.0	153.7	-59.1		250.0	570.0	301.1	47.0	1.000056
45500.0	150.0	-59.7		243.6	570.5	300.7	48.0	1.000054
46000.0	146.0	-59.4		238.6	569.5	301.1	48.9	1.000053
46500.0	142.0	-60.2		233.7	568.6	301.5	49.8	1.000052
47000.0	139.4	-60.9		228.8	567.6	302.6	49.4	1.000051
47500.0	136.1	-61.6		224.1	566.6	304.6	48.4	1.000050
48000.0	132.8	-62.2		219.2	565.8	306.2	47.2	1.000049
48500.0	129.5	-62.7		214.3	565.2	305.0	44.8	1.000048
49000.0	126.3	-63.1		209.6	564.6	303.5	42.4	1.000047
49500.0	123.2	-63.6		204.9	563.9	302.3	40.3	1.000046
50000.0	120.2	-64.1		200.3	563.3	301.4	38.5	1.000045
50500.0	117.3	-64.6		195.8	562.7	300.4	36.8	1.000044
51000.0	114.4	-65.0		191.5	562.0	302.1	35.4	1.000043
51500.0	111.6	-65.5		187.2	561.4	305.8	34.4	1.000042
52000.0	108.8	-66.0		183.0	560.7	309.8	33.6	1.000041
52500.0	106.2	-66.5		178.9	560.1	311.0	32.3	1.000040
53000.0	103.6	-66.9		175.0	559.4	311.3	30.8	1.000039
53500.0	101.0	-67.4		171.1	558.8	311.2	29.1	1.000038
54000.0	98.5	-67.9		166.9	558.6	303.1	26.0	1.000037
54500.0	96.1	-67.5		162.7	558.7	304.0	23.0	1.000036
55000.0	93.7	-67.4		158.6	558.8	301.5	20.9	1.000035
55500.0	91.4	-67.3		154.6	559.0	300.7	19.3	1.000034
56000.0	89.1	-67.2		150.7	559.1	299.7	17.7	1.000034
56500.0	86.9	-67.8		147.4	558.2	294.6	17.3	1.000033
57000.0	84.7	-68.5		144.1	557.3	299.8	17.4	1.000032
57500.0	82.5	-69.2		141.0	556.4	300.0	17.4	1.000031
58000.0	80.5	-69.8		137.9	555.5	303.5	19.0	1.000031
58500.0	78.4	-70.5		134.8	554.6	307.1	20.9	1.000030
59000.0	76.5	-71.2		131.9	553.7	310.0	23.0	1.000029
59500.0	74.5	-71.9		129.0	552.7	315.1	22.3	1.000029
60000.0	72.7	-72.5		126.2	551.8	320.5	21.7	1.000028
60500.0	70.8	-73.2		123.4	550.9	325.2	19.8	1.000027
61000.0	69.0	-72.9		119.8	551.9	329.1	14.8	1.000027
61500.0	67.3	-70.5		115.7	554.6	337.0	9.9	1.000026
62000.0	65.6	-68.5		111.7	557.3	328.0	5.4	1.000025
62500.0	64.0	-67.7		108.5	558.5	263.7	3.4	1.000024
63000.0	62.4	-67.2		105.6	559.1	216.1	6.6	1.000024

STATION ALTITUDE 3912.75 FEET MSL
24 FEB. 61 0850 HRS MST
ACQUISITION NO. 22

UPPER AIR DATA
0540290022
E-20

TABLE 11 cont'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AT DEWPOINT F C	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX	
						DIRECTION DEGREES (TW)	SPEED KNOTS	OR REFRACTION	
63500.0	60.9	-66.8		102.7	559.7	215.7	7.4	1.000023	
64000.0	59.4	-66.3		100.0	560.3	217.2	7.7	1.000022	
64500.0	57.9	-65.9		97.3	560.9	219.3	8.0	1.000022	
65000.0	56.5	-65.4		94.7	561.5	234.2	7.0	1.000021	
65500.0	55.1	-65.0		92.2	562.1	252.3	6.6	1.000021	
66000.0	53.7	-64.5		89.7	562.7	266.9	7.3	1.000020	
66500.0	52.4	-64.1		87.3	563.3	267.0	9.6	1.000019	
67000.0	51.1	-62.2		84.5	563.9	267.0	11.9	1.000019	
67500.0	49.7	-60.3		81.7	568.4	267.2	13.1	1.000018	
68000.0	48.3	-59.9		79.6	568.9	267.9	12.2	1.000018	
68500.0	47.5	-59.5		77.5	569.4	268.6	11.4	1.000017	
69000.0	46.4	-59.2		75.6	569.9	269.8	10.2	1.000017	
69500.0	45.3	-58.8		73.6	570.4	273.2	6.1	1.000016	
70000.0	44.2	-58.4		71.8	570.9	289.1	2.2	1.000016	
70500.0	43.2	-58.0		69.9	571.4	62.1	2.3	1.000016	
71000.0	42.1	-57.7		68.1	571.9	72.2	3.8	1.000015	
71500.0	41.1	-57.5		66.5	572.1	75.7	4.8	1.000015	
72000.0	40.2	-57.9		65.0	571.5	78.0	5.8	1.000014	
72500.0	39.2	-58.3		63.6	571.0			1.000014	
73000.0	38.3	-58.7		62.2	570.6			1.000014	
73500.0	37.4	-58.3		60.6	571.1			1.000013	
74000.0	36.5	-57.9		59.1	571.6			1.000013	
74500.0	35.6	-57.5		57.6	572.1			1.000013	
75000.0	34.4	-57.1		56.1	572.6			1.000012	
75500.0	34.0	-56.7		54.7	573.1			1.000012	

STATION ALTITUDE 3912.75 FEET MSL
 23 FEB. 61
 ASCENSION IS. 22

MANDATORY LEVELS
 0540290022
 E-20

GEODETIC COORDINATES
 32.89927 LAT DEG
 106.40591 LON DEG

TABLE 12

PRESSURE GEOPOTENTIAL		TEMPERATURE		HLL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	5012.	6.8	-11.3	26.	275.7	.7	
800.0	6649.	6.8	-10.9	27.	60.2	2.9	
750.0	8378.	4.0	-13.7	26.	130.4	2.8	
700.0	10209.	1.6	-17.3	23.	141.0	7.2	
650.0	12157.	-1.3	-20.7	21.	261.8	3.8	
600.0	14237.	-4.3	-23.6	21.	296.6	13.1	
550.0	16473.	-7.7	-26.7	20.	204.9	19.3	
500.0	18879.	-13.4	-31.5	20.	265.8	14.3	
450.0	21461.	-19.3	-36.9	19.	265.4	14.1	
400.0	24314.	-26.4	-42.5	20.	253.1	11.6	
350.0	27427.	-34.8	-48.6	23.	259.1	17.7	
300.0	30899.	-44.2			256.8	26.1	
250.0	34814.	-54.0			252.2	32.1	
200.0	39046.	-58.2			283.2	34.0	
175.0	42201.	-50.7			304.5	43.3	
150.0	45378.	-58.7			300.7	47.9	
125.0	49000.	-63.3			302.9	41.4	
100.0	53543.	-67.6			310.2	28.0	
80.0	57943.	-70.0			304.3	19.4	
70.0	60528.	-73.5			326.5	17.8	
60.0	63554.	-66.5			216.5	7.6	
50.0	67209.	-60.3			267.1	13.2	
40.0	71809.	-58.0			78.2	5.9	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

D
FIL

5